

Form PTO-1449 U.S. Department of Commerce
(REV. 2-82) Patent and Trademark OfficeAtty. Docket No.
A33636-A 067252.0107Serial No.
09/910,186Applicant
Smith et al.Filing Date
July 20, 2001Group
1645**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**
(Use several sheets if necessary)**RECEIVED**
MAY 03 2002
TECH CENTER 1600/2800**U.S. PATENT DOCUMENTS**

*Exam. Init	Document No.								Date	Name	Class	Subclass	Filing Date if Appropriate
	19	5	9	1	9	6	6	5	07-06-1999	Williams JA			
	37	5	6	0	1	8	2	3	02-11-1997	Williams JA			
	68	5	1	9	6	1	9	3	03-23-1993	Carroll SB			

FOREIGN PATENT DOCUMENT

	Document No.								Date	Country	Class	SubClass	Translator	
													Yes	No
	12	0	0	1	2	8	9	0	11-16-2000	PCT US (WO 00/67700)				
	27	9	7	1	5	3	9	4	05-03-1998	PCT US (WO 98/08540)				

OTHER DOCUMENTS (including Author, Title Date, Pertinent Pages, Etc.)

	1	Ahmed SA et al., 2001, "Enzymatic autocatalysis of botulinum A neurotoxin light chain" <i>J. Protein Chem.</i> 20 (3):221-231
--	---	--

NY02:382851.1

Examiner

Date Considered

10/31/02

* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce
(REV. 2-82) Patent and Trademark Office

Atty. Docket No.
A33636-A 067252.0107

Serial No.
09/910,186

**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**

(Use several sheets if necessary)

Applicant
Smith et al.

Filing Date
July 20, 2001

Group
1645

2	Schmidt JJ et al., 2001, "High-throughput assays for botulinum neurotoxin proteolytic activity: serotypes A, B, D, and F" <i>Analytical Biochemistry</i> 296 :130-137
3	URL: http://www.cdc.gov/ncidod/srp/drugservice/immuodrugs.htm , 2001, "Immunobiologic Agents and Drugs Available from the Centers for Disease Control. Descriptions, Recommendations, Adverse Reactions and Serologic Response" Centers for Disease Control, Atlanta, GA
4	Ahmed SA et al., 2000, "Light chain of botulinum A neurotoxin expressed as an inclusion body from a synthetic gene is catalytically and functionally active" <i>J. Protein Chem.</i> 19 (6):475-487
5	Alderton JM et al., 2000, "Evidence for a vesicle-mediated maintenance of store-operated calcium channels in a human embryonic kidney cell line" <i>Cell. Calcium</i> 28 (3):161-169
6	Byrne MP et al., 2000, "Fermentation, purification, and efficacy of a recombinant vaccine candidate against botulinum neurotoxin type F from <i>Pichia pastoris</i> " <i>Protein Expr Purif.</i> 18 (3):327-337
7	Dalbey RE et al., 2000, "Evolutionarily related insertion pathways of bacterial, mitochondrial, and thylakoid membrane proteins" <i>Annu. Rev. Cell Dev. Biol.</i> 16 :51-87
8	Ettinger RA et al., 2000, "Beta 57-Asp plays an essential role in the unique SDS stability of HLA-DQA1*0102/DQB1*0602 alpha beta protein dimer, the class II MHC allele associated with protection from insulin-dependent diabetes mellitus" <i>J. Immunol</i> 165 :3232-3238
9	Kadkhodayan S et al., 2000, "Cloning, expression, and one-step purification of the minimal essential domain of the light chain of botulinum neurotoxin type A" <i>Protein Expr. Purif.</i> 19 (1):125-130
10	Knapp M et al., 2000, "The crystal structure of botulinum toxin A zinc protease domain." Presented at the 37th Annual Meeting of the Interagency Botulinum Research Coordinating Committee, October 17-20, 2000, Alisomar, California
11	Li L et al., 2000, "Role of zinc binding in type A botulinum neurotoxin light chain's toxic structure" <i>Biochemistry</i> 39 :10581-10586
13	Strasser A et al., 2000, "Apoptosis signaling" <i>Annu. Rev. Biochem</i> 69 :217-245
14	Cai S et al., 1999, "Enhancement of the endopeptidase activity of botulinum neurotoxin by its associated proteins and dithiothreitol" <i>Biochemistry</i> 38 :6903-6910
15	Claiborne A et al., 1999, "Protein-sulfenic acids: diverse roles for an unlikely player in enzyme catalysis and redox regulation" <i>Biochemistry</i> 38 :15407-15416

NY02:382851.1

Examiner

Date Considered

* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

DIPE
MAY 01 2002
PATENT & TRADEMARK

Form PTO-1449 U.S. Department of Commerce
(REV. 2-82) Patent and Trademark Office

Att. Docket No.
A33636-A 067252.0107

Serial No.
09/910,186

Applicant
Smith et al.

Filing Date
July 20, 2001

Group
1645

**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**

(Use several sheets if necessary)

RECEIVED
MAY 03 2002
TECH. CENTER 1600/2900

16	Lacy DB et al., 1999, "Sequence homology and structural analysis of the clostridial neurotoxins" <i>J. Mol. Biol.</i> 291 :1091-1104
17	Li L et al., 1999, "High-level expression, purification, and characterization of recombinant type A botulinum neurotoxin light chain" <i>Protein Expr. Purif.</i> 17 :339-344
18	Li L et al., 1999, "In vitro translation of type A Clostridium botulinum neurotoxin heavy chain and analysis of its binding to rat synaptosomes" <i>J Protein Chem.</i> 18 (1):89-95
20	Byrne MP et al., 1998, "Purification, Potency, and Efficacy of the Botulinum Neurotoxin Type A Binding Domain from <i>Pichia pastoris</i> as a Recombinant Vaccine Candidate," <i>Infect. Immun.</i> 66 :4817-4822
21	Fu F et al., 1998, "Role of zinc in the structure and toxic activity of botulinum neurotoxin" <i>Biochemistry</i> 37 :5267-5278
22	Lacy DB et al., 1998, "Crystal Structure of Botulinum Neurotoxin Type A and Implications for Toxicity," <i>Nat. Struct. Biol.</i> 5 :898-902
23	Nowakowski JL et al., 1998, "Production of an expression system for a synaptobrevin fragment to monitor cleavage by botulinum neurotoxin B" <i>J. Protein Chem.</i> 17 :453-462
24	Potter KJ et al., 1998, "Production and purification of the heavy-chain fragment C of botulinum neurotoxin, serotype B, expressed in the methylotrophic yeast <i>Pichia pastoris</i> " <i>Protein Expr Purif.</i> 13 (3):357-365
25	Schmidt JJ et al., 1998, "Type A botulinum neurotoxin proteolytic activity: development of competitive inhibitors and implications for substrate specificity at the S1' binding subsite" <i>FEBS Lett.</i> 435 :61-64
26	Smith LA, 1998, "Development of recombinant vaccines for botulinum neurotoxin" <i>Toxicon.</i> 36 (11):1539-48
28	Adler M et al., 1997, "Protection by the heavy metal chelator N,N,N',N'-tetrakis (2-pyridylmethyl)ethylenediamine (TPEN) against the lethal action of botulinum neurotoxin A and B" <i>Toxicon</i> 35 :1089-1100
29	Brown DR et al., 1997, "Identification and Characterization of a Neutralizing Monoclonal Antibody Against Botulinum Neurotoxin, Serotype F, Following Vaccination with Active Toxin," <i>Hybridoma</i> , 16 :447-456

NY02:382851.1

Examiner

[Signature]

Date Considered

10/31/02

* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

O I P E
 MAY 0 1 2002
 PATENT & TRADEMARK OFFICE

Form PTO-1449 U.S. Department of Commerce
(REV. 2-82) Patent and Trademark Office

Atty. Docket No.
A33636-A 067252.0107

Serial No.
09/910,186

Applicant
Smith et al.

Filing Date
July 20, 2001

Group
1645

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

RECEIVED
 MAY 03 2002
 TECH CENTER 1600/2900

30	Chen F et al., 1997, "Antibody mapping to domains of botulinum neurotoxin serotype A in the complexed and uncomplexed forms" <i>Infect. Immun.</i> 65 :1626-1630
31	Chiruvolu V et al., 1997, "Recombinant Protein Expression in an Alcohol Oxidase-Defective Strain of <i>Pichia pastoris</i> in Feed-Batch Fermentations, <i>Enzyme Microbiol. Technol.</i> 21 :277-283
32	Kiyatkin N et al., 1997, "Induction of an immune response by oral administration of recombinant botulinum toxin" <i>Infect. Immun.</i> 65 :4586-4591
33	Lebeda FJ et al., 1997, "Predicting Differential Antigen-Antibody Contact Regions Based on Solvent Accessibility," <i>J. Protein Chem.</i> 16 :607-618
34	Schmidt JJ et al., 1997, "Endoproteinase activity of type A botulinum neurotoxin: substrate requirements and activation by serum albumin" <i>J. Protein Chem.</i> 16 (1):19-26
35	Sheridan RE et al., 1997, "Structural features of aminoquinolines necessary for antagonist activity against botulinum neurotoxin" <i>Toxicon</i> 35 :1439-1451
36	Washbourne P et al., 1997, "Botulinum neurotoxin types A and E require the SNARE motif in SNAP-25 for proteolysis" <i>FEBS Lett.</i> 418 :1-5
38	Dertzbaugh MT et al., 1996, "Mapping of protective and cross-reactive domains of the type A neurotoxin of <i>Clostridium botulinum</i> " <i>Vaccine</i> 14 :1538-1544
39	Foran P et al., 1996, "Botulinum neurotoxin C1 cleaves both syntaxin and SNAP-25 in intact and permeabilized chromaffin cells: correlation with its blockade of catecholamine release" <i>Biochemistry</i> 35 :2630-2636
40	Auld DS, 1995, "Removal and replacement of metal ions in metallopeptidases" <i>Meth. Enzymol.</i> 248 :228-242
41	Bi GQ et al., 1995, "Calcium-regulated exocytosis is required for cell membrane resealing" <i>J. Cel Biol.</i> 131 :1747-1758
42	Cardoso F et al., 1995, "Clinical use of botulinum neurotoxins". In <i>Current Topics in Microbiology and Immunology</i> (Capron A et al., eds.), Springer-Verlag, Germany, 195 :123-141
43	Clayton MA et al., 1995, "Protective vaccination with a recombinant fragment of <i>Clostridium botulinum</i> neurotoxin serotype A expressed from a synthetic gene in <i>Escherichia coli</i> " <i>Infect Immun.</i> 63 (7):2738-2742

NY02:382851.1

Examiner

Date Considered

* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**

(Use several sheets if necessary)

Applicant
Smith et al.

Filing Date
July 20, 2001

Group
1645

- 44 Klatt P et al., 1995, "Structural analysis of porcine brain nitric oxide synthase reveals a role for tetrahydrobiopterin and L-arginine in the formation of an SDS-resistant dimer" *EMBO J.* 14:3687-3695
- 45 LaPenotiere HF et al., 1995, "Expression of a large, nontoxic fragment of botulinum neurotoxin serotype A and its use as an immunogen" *Toxicon.* 33(10):1383-1386
- 46 Montecucco C et al., 1995, "Structure and function of tetanus and botulinum neurotoxins" *Q. Rev. Biophys.* 28:423-472
- 47 Oguma K et al., 1995, "Structure and Function of *Clostridium botulinum* Toxins" *Microbiol. Immunol.* 39:161-168
- 48 Pace CN et al., 1995, "How to measure and predict the molar absorption coefficient of a protein" *Protein Sci.* 4:2411-2423
- 49 Romanos MA et al., 1995, "Expression of Cloned Genes in Yeast," *DNA Cloning 2: Expression Systems*, (Glover D., et al., Eds.), Oxford Univ. Press, London, pp. 123-167
- 50 Schiavo G et al., 1995, "Intracellular targets and metalloprotease activity of tetanus and botulinum neurotoxins." In *Clostridial Neurotoxins: The Molecular Pathogenesis of Tetanus and Botulism* (Montecucco, C., ed.), Springer, New York, pp. 257-273
- 51 Schmidt JJ et al., 1995, "Proteolysis of synthetic peptides by type A botulinum neurotoxin" *J. Protein Chem.* 14(8):703-708
- 52 Shone CC et al., 1995, "Growth of clostridia and preparation of their neurotoxins" *Curr. Top. Microbiol. Immunol.* 195:143-160
- 53 Zhou L et al., 1995, "Expression and purification of the light chain of botulinum neurotoxin A: a single mutation abolishes its cleavage of SNAP-25 and neurotoxicity after reconstitution with the heavy chain" *Biochemistry* 34(46):15175-15181
- 54 Foran P et al., 1994, "Differences in the protease activities of tetanus and botulinum B toxins revealed by the cleavage of vesicle-associated membrane protein and various sized fragments" *Biochemistry* 33:15365-15374
- 55 Krieglstein KG et al., 1994, "Covalent structure of botulinum neurotoxin type A: location of sulfhydryl groups, and disulfide bridges and identification of C-termini of light and heavy chains" *J. Protein Chem.* 13:49-57
- 56 Lebeda FJ et al.:1994, "Secondary structural predictions for the clostridial neurotoxins" *Proteins* 20:293-300

NY02:382851.1

Examiner

Date Considered

Form PTO-1449 U.S. Department of Commerce
(REV. 2-82) Patent and Trademark Office

Atty. Docket No.
A33636-A 067252.0107

Serial No.
09/910,186

Applicant
Smith et al.

Filing Date
July 20, 2001

Group
1645

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

57	Li Y et al., 1994, "A single mutation in the recombinant light chain of tetanus toxin abolishes its proteolytic activity and removes the toxicity seen after reconstitution with native heavy chain" <i>Biochemistry</i> 33 :7014-7020
58	Montecucco C et al., 1994, "Mechanism of action of tetanus and botulinum neurotoxins" <i>Mol. Microbiol</i> 13 :1-8
59	Nishiki TI et al., 1994, "Identification of Protein Receptor for <i>Clostridium botulinum</i> Type B Neurotoxin in Rat Brain Synaptosomes" <i>J. Biol. Chem.</i> 269 :10498-10503
60	Rossetto O et al., 1994, "SNARE motif and neurotoxins" <i>Nature</i> 372 :415-416
61	Schiavo G et al., 1994, "Botulinum G neurotoxin cleaves VAMP/synaptobrevin at a single Ala-Ala peptide bond" <i>J. Biol. Chem.</i> 269 :20213-20216
62	Scorer CA et al., 1994, "Rapid Selection Using G418 of High Copy Number Transformants of <i>Pichia pastoris</i> for High-Level Foreign Gene Expression," <i>Bio/Technology</i> , 12 :181-184
63	Shone CC et al., 1994, "Peptide substrate specificity and properties of the zinc-endopeptidase activity of botulinum type B neurotoxin" <i>Eur. J. Biochem.</i> 225 :263-270
64	Steinhardt RA et al., 1994, "Cell membrane resealing by a vesicular mechanism similar to neurotransmitter release" <i>Science</i> 263 :390-393
65	Baltz RH et al., eds., 1993, <i>Industrial Microorganisms: Basic and Applied Molecular Genetics</i> , American Society for Microbiology, Washington, D.C., pp. 122-126
66	Blasi J et al., 1993, "Botulinum neurotoxin A selectively cleaves the synaptic protein SNAP-25" <i>Nature</i> 365 :160-163
67	Campbell KD et al., 1993, "Gene probes for identification of the botulinal neurotoxin gene and specific identification of neurotoxin types B, E, and F" <i>J Clin Microbiol.</i> 31 (9):2255-2262
69	Cregg JM et al., 1993, "Recent Advances in the Expression of Foreign Genes in <i>Pichia pastoris</i> ," <i>Bio/Technology</i> , 11 :905-910
70	de Paiva A et al., 1993, "A role for the interchain disulfide or its participating thiols in the internalization of botulinum neurotoxin A revealed by a toxin derivative that binds to ecto-acceptors and inhibits transmitter release intracellularly" <i>J. Biol. Chem.</i> 268 :20838-20844

NY02:382851.1

Examiner

Date Considered

* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce
(REV. 2-82) Patent and Trademark Office

Atty. Docket No.
A33636-A 067252.0107

Serial No.
09/910,186

Applicant
Smith et al.

Filing Date
July 20, 2001

Group
1645

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

71	Dertzbaugh M et al., May 1993, "Cloning and Expression of Peptides derived from the botulinum neurotoxin serotype A gene" 93rd American Society for Microbiology General Meeting, Atlanta, GA, Session 334, E-105, p.161
72	Gimenez JA et al., 1993, "Botulinum Type A neurotoxin digested with pep 97, 72, 45, 42, and 18 kD fragments" <i>J Protein Chem.</i> 12(3):351-363
73	LaPenotiere HF et al., 1993, "Development of a molecular engineer inum rk
74	Schiavo G et al., 1993, "Identification of the Nerve Terminal Targets of Botulinum Neurotoxin Serotypes A, D, and E" <i>J. Biol. Chem.</i> 268:23784-23787
75	Shone CC et al., 1993, "Proteolytic Cleavage of Synthetic Fragment associated -971
76	Simpson LL et al., 1993, "Chelation of zinc antagonizes the neuromuscular blo properties of the seven serotypes of botulinum neurotoxin as well as tetanus toxin" <i>J. Pharmacol. Ther.</i> 267:720-727
77	Sreekrishna K, 1993, "Strategies for Optimizing Protein Expression and Secretion in the Methylophilic Yeast <i>Pichia pastoris</i> ," <i>Industrial Micororganisms: Basic and Applied Molecular Genetics</i> , Baltz, R. H., et al, Eds.), pp. 119-126, Am. Soc. Microbiol., Washington, DC
78	Ahmed SA et al., 1992, "Active-site structural comparison of streptococcal NADH peroxidase and NADH oxidase. Reconstitution with artificial flavins" <i>J. Biol. Chem.</i> 267:3832-3840
79	Kurazono H et al., 1992, "Minimal essential domains specifying toxicity of the light chains of tetanus toxin and botulinum neurotoxin type A" <i>J Biol Chem.</i> 267(21):14721-14729
80	Montal MS et al., 1992, "Identification of an Ion Channel-Forming Motif in the Primary Structure of Tetanus and Botulinum Neurotoxins" <i>FEBS</i> 313:12-18
81	Romanos MA et al., 1992, "Foreign Gene Expression in Yeast: A Review," <i>Yeast</i> , 8:423-488
82	Schiavo G et al., 1992, "Tetanus and Botulinum-B Neurotoxins Block Neurotransmitter Release by Proteolytic Cleavage of Synaptobrevin" <i>Nature</i> 359:832-835

NY02:382851.1

Examiner

Date Considered

* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce
(REV. 2-82) Patent and Trademark Office

Atty. Docket No.
A33636-A 067252.0107

Serial No.
09/910,186

**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**

(Use several sheets if necessary)

Applicant
Smith et al.

Filing Date
July 20, 2001

Group
1645

83	Schiavo G et al., 1992, "Tetanus Toxin is a Zinc Protein and its Inhibition of Neurotransmitter Release and Protease Activity Depend on Zinc" <i>EMBO J.</i> 11 :3577-3583
84	Whelan SM et al., 1992, "Molecular cloning of the Clostridium botulinum structural gene encoding the type B neurotoxin and determination of its entire nucleotide sequence" <i>Appl. Environ. Microbiol.</i> 58 :2345-2354
85	Clare JJ et al., 1991, "High-Level Expression of Tetanus Toxin Fragment C in <i>Pichia pastoris</i> Strains Containing Multiple Tandem Integrations of the Gene," <i>Bio/Technology</i> 9 :455-460
86	Niemann H et al., 1991, "Clostridial neurotoxins: from toxins to therapeutic tools?" <i>Behring Inst Mitt.</i> 89 :153-162
87	Poulain B et al., 1991, "Heterologous Combinations of Heavy and Light Chains from Botulinum Neurotoxin A and Tetanus Toxin Inhibit Neurotransmitter Release in <i>Aplysia</i> " <i>J. Biol. Chem.</i> 266 :9580-9585
88	Romanos MA, et al., 1991, "Expression of Tetanus Toxin Fragment C in Yeast: Gene Synthesis is Required to Eliminate Fortuitous Polyadenylation Sites in AT-rich DNA," <i>Nucleic Acids Res.</i> 19 :1461-1467
89	Ahnert-Hilger G et al., 1990, "Chains and fragments of tetanus toxin, and their contribution to toxicity" <i>J Physiol (Paris)</i> 84 (3):229-236
90	Andersson SG et al., 1990, "Codon preferences in free-living microorganisms" <i>Microbial. Rev.</i> 54 (2):198-210
91	DasGupta BR et al., 1990, "Botulinum neurotoxin type A: sequence of amino acids at the N-terminus and around the nicking site" <i>Biochimie</i> 72 :661-664
92	Dekleva ML et al., 1990, "Purification and characterization of a protease from Clostridium botulinum type A that nicks single-chain type A botulinum neurotoxin into the di-chain form" <i>J. Bacteriol.</i> 172 :2498-2503
93	Thompson DE et al., 1990, "The complete amino acid sequence of the Clostridium botulinum type A neurotoxin, deduced by nucleotide sequence analysis of the encoding gene" <i>Eur. J. Biochem.</i> 189 :73-81
94	Wadsworth JDF et al., 1990, "Botulinum Type F Neurotoxin" <i>Biochem. J.</i> 268 :123-128

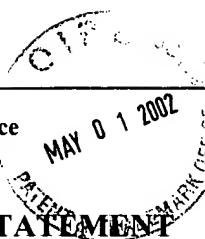
NY02:382851.1

Examiner

Date Considered

* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce
(REV. 2-82) Patent and Trademark Office



Atty. Docket No.
A33636-A 067252.0107

Serial No.
09/910,186

Applicant
Smith et al.

Filing Date
July 20, 2001

Group
1645

INFORMATION DISCLOSURE STATEMENT

BY APPLICANT

(Use several sheets if necessary)

95	Bittner MA et al., 1989, "Isolated light chains of botulinum neurotoxins inhibit exocytosis. Studies in digitonin-permeabilized chromaffin cells" <i>J. Biol. Chem.</i> 264 :10354-10360
96	DasGupta BR et al., 1989, "C. botulinum neurotoxin types A and E: isolated light chain breaks down into two fragments. Comparison of their amino acid sequences with tetanus neurotoxin" <i>Biochimie</i> 71 :1193-1200
97	DasGupta BR, 1989, "The Structure of Botulinum Neurotoxins" <i>Botulinum Neurotoxin and Tetanus Toxin</i> , (Simpson, L.L., Ed.) Academic Press, New York, pp. 53-67
98	Kozaki S et al., 1989, "Immunological characterization of papain-induced fragments of Clostridium botulinum type A neurotoxin and interaction of the fragments with brain synaptosomes" <i>Infect Immun.</i> 57 (9):2634-2639
99	Kozaki et al., 1989, "Antibodies against Botulism Neurotoxin", L.L. Simpson, ed. Academic Press, New York, pp. 301-318
100	Makoff AJ et al., 1989, "Expression of Tetanus Toxin Fragment C in <i>E. coli</i> : High Level Expression by Removing Rare Condons," <i>Nucleic Acids Res.</i> 17 :10191-10201
101	Middlebrook JL, 1989, "Cell Surface Receptors for Protein Toxins" <i>Botulinum Neurotoxins and Tetanus Toxin</i> , (Simpson, L.L., Ed.) Academic Press, New York, pp. 95-119
102	Maisey EA et al., 1988, "Involvement of the constituent chains of botulinum neurotoxins A and B in the blockade of neurotransmitter release" <i>Eur. J. Biochem.</i> 177 :683-691
103	Sathyamoorthy V et al., 1988, "Botulinum neurotoxin type A: cleavage of the heavy chain into two halves and their partial sequences" <i>Arch Biochem Biophys.</i> 266 (1):142-151
104	Siegel LS, 1988, "Human Immune Response to Botulinum Pentavalent (ABCDE) Toxoid Determined by a Neutralization Test and by an Enzyme-Linked Immunosorbent Assay" <i>J. Clin. Microbiol.</i> 26 :2351-2356
105	Sreekrishna K et al., 1988, "High Level Expression of Heterologous Proteins in Methylophilic Yeast <i>Pichia pastoris</i> ," <i>J. Bas. Microbiol.</i> 28 :265-278
106	Winkler HH et al., 1988, "Codon usage in selected AT-rich bacteria" <i>Biochimie</i> 70 :977-986

NY02:382851.1

Examiner

Date Considered

* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

RECEIVED

Form PTO-1449 U.S. Department of Commerce
(REV. 2-82) Patent and Trademark Office

MAY 01 2002

Atty. Docket No.
A33636-A 067252.0107Serial No.
09/910,186Applicant
Smith et al.Filing Date
July 20, 2001Group
1645

TECH. CENTER 1600/2900

INFORMATION DISCLOSURE STATEMENT

BY APPLICANT

(Use several sheets if necessary)

107	Schagger H et al., 1987, "Tricine-sodium dodecyl sulfate-polyacrylamide gel electrophoresis for the separation of proteins in the range from 1 to 100 kDa" <i>Anal. Biochem.</i> 166 :368-379
108	Shone CC et al., 1987, "A 50-kDa Fragment from the NH ₂ -terminus of the Heavy Subunit of <i>Clostridium botulinum</i> Type A Neurotoxin Forms Channels in Lipid Vesicles, <i>Euro. J. Biochem.</i> 167 :175-180
109	Sonnabend WF et al., 1987, "Intestinal Toxicoinfection by <i>Clostridium botulinum</i> Type F in an Adult. Case Associated with Guillian-Barre Syndrome" <i>Lancet</i> 1 :357-361
110	Ahmed SA et al., 1986, "Identification of three sites of proteolytic cleavage in the hinge region between the two domains of the beta 2 subunit of tryptophan synthase of <i>Escherichia coli</i> or <i>Salmonella typhimurium</i> " <i>Biochemistry</i> 25 , 3118-3124
111	Black JD et al., 1986, "Interaction of ¹²⁵ I-botulinum Neurotoxins with Nerve Terminals. I. Ultrastructural Autoradiographic Localization and Quantitation of Distinct Membrane Acceptors for Types A and B on Motor Nerves" <i>J. Cell Biol.</i> 103 :521-534
112	Habermann E et al., 1986, "Clostridial Neurotoxins: Handling and Action at the Cellular and Molecular Level" <i>Cur. Top. Microbiol. Immunol.</i> 129 :93-179
113	Simpson LL, 1986, "Molecular Pharmacology of Botulinum Toxin and Tetanus Toxin" <i>Annu. Rev Pharmacol. Toxicol.</i> 26 :427-453
114	Cregg JM et al., 1985, " <i>Pichia pastoris</i> as a Host System for Transformations," <i>Mol. Cell. Biol.</i> 5 :3376-3385
115	Sathyamoorthy V et al., 1985, "Separation, purification, partial characterization and comparison of the heavy and light chains of botulinum neurotoxin types A, B, and E" <i>J Biol Chem.</i> 260 (19):10461-10466
116	Schmidt JJ et al., 1985, "Partial amino acid sequences of botulinum neurotoxins types B and E" <i>Arch. Biochem. Biophys.</i> 238 :544-548
117	Shone CC et al., 1985, "Inactivation of <i>Clostridium botulinum</i> Type A Neurotoxin by Trypsin and Purification of Two Tryptic Fragments. Proteolytic Action Near the COOH-terminus of Heavy Subunit Destroys Toxin-Binding Activity, <i>Eur. J. Biochem.</i> 151 :75-82
118	Anderson JH et al., 1981, "Clinical Evaluation of Botulinum Toxoids" <i>Biomedical Aspects of Botulism</i> , (Lewis, G.E., Ed.) Academic Press, New York, pp. 233-246

NY02:382851.1

Examiner

Date Considered

* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce
(REV. 2-82) Patent and Trademark Office

Atty. Docket No.
A33636-A 067252.0107

Serial No.
09/910,186

Applicant
Smith et al.

Filing Date
July 20, 2001

Group
1645

**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**
(Use several sheets if necessary)

119	Syuto B et al., 1981, "Separation and characterization of heavy and light chains from <i>Clostridium botulinum</i> type C toxin and their reconstitution" <i>J. Biol. Chem.</i> 256 :3712-3717
120	Hatheway CL, 1976, "Toxoid of <i>Clostridium botulinum</i> Type F: Purification and Immunogenicity Studies" <i>Appl. Environ. Microbiol.</i> 31 :234-242
121	DasGupta BR et al., 1972, "A Common Subunit Structure in <i>Clostridium botulinum</i> Type A, B, and E Toxins" <i>Biophys. Res. Commun.</i> 48 :108-112
122	Midura TF et al., 1972, " <i>Clostridium botulinum</i> Type F: Isolation from Venison Jerky" <i>Appl. Microbiol.</i> 24 :165-167
123	Laemmli UK, 1970, "Cleavage of structural proteins during the assembly of the head of bacteriophage T4" <i>Nature</i> 227 :680-685
124	van Heyningen WE, 1968, "Tetanus" <i>Sci. Am.</i> 218 :69-77
125	Fiock MA et al., 1963, "Studies of Immunities to Toxins of <i>Clostridium Botul</i> Immunologic Response of Man to Purified Pentavalent ABCDE Botulinum T 90 :697-702

NY02:382851.1

Examiner

Date Considered

* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.